OCT 2 6 2007

Docket No.: GMI-056

(PATENT)

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Rabellere Letters Patent of: Longberg et al.

Patent No.: 7,084,260

Issued: August 1, 2007

For: TRANSGENIC NON-HUMAN AMINALS FOR

PRODUCING HETEROLOGOUS

**ANTIBODIES** 

Attention: Office of Petitions Commissioner for Patents P.O. Box 1450

Alexandria, VA 22313-1450

# RESPONSE TO LETTER REGARDING OF PATENT TERM ADJUSTMENT

### Dear Sir:

This communication is in response to the Letter Regarding Patent Term Adjustment and Notice of Intent to Issue Certificate of Correction mailed September 20, 2007 from the U.S. Patent and Trademark Office. Specifically, Patentees respectfully maintain that for the following reason that they are entitled to 551 days of PTA instead of the 487 days granted in the Letter.

A period of reduction in the Patent Term Adjustment was entered by the Office in association with the filing of a REQUEST FOR ACKNOWLEDGEMENT OF PREVIOUSLY SUBMITTED INFORMATION DISCLOSURE STATEMENT filed October 25, 2005 (resubmitted December 19, 2005). The reduction reflects a period of 64 days beginning with receipt of the REQUEST by the Office (October 28, 2005) and ending on the day the REQUEST was considered by the Examiner (December 30, 2005). However, because the resubmission was not due to Patentees fault or delay, and because Patentees were in fact making reasonable efforts to conclude the processing and examination of the application during prosecution, the 64 days should not be counted against Patentees' PTA. Specifically, Patentees previously submitted the

0-22-09

PTO/SB/21 (10-07)

Approved for use through 10/31/2007. OMB 0651-0031 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE rwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. **Application Number** Patent#: 7.084,260 Filing Date TRANSMITTAL Issued: August 1, 2006 First Named Inventor **FORM** Nils LONBERG Art Unit 1644 **Examiner Name** P. J. Nolan (to be used for all correspondence after initial filing) Attorney Docket Number **GMI-056** Total Number of Pages in This Submission ENCLOSURES (Check all that apply) After Allowance Communication Fee Transmittal Form Drawing(s) Appeal Communication to Board of Fee Attached Licensing-related Papers Appeals and Interferences Appeal Communication to TC x | Amendment/Reply Petition (Appeal Notice, Brief, Reply Brief) Petition to Convert to a After Final **Proprietary Information** Provisional Application Power of Attorney, Revocation Affidavits/declaration(s) **Status Letter** Change of Correspondence Address X Other Enclosure(s) (please Identify below): Extension of Time Request Terminal Disclaimer Exhibit A (15 pages) **Express Abandonment Request** Request for Refund Exhibit B (2 pages) Return Receipt Postcard Information Disclosure Statement CD, Number of CD(s) Certified Copy of Priority Landscape Table on CD Document(s) Reply to Missing Parts/ Remarks Incomplete Application Reply to Missing Parts under 37 CFR 1.52 or 1.53 SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT Firm Name LAHIVE & COCKFIELD, LLP Signature Printed name

		 · · · · · · · · · · · · · · · · · · ·
Express Mail Label No. EV 957672096 US	Dated: October 26, 2007	

Reg. No.

41,710

Jeanne M. DiGiorgio

October 26, 2007

Date

Patent No.: 7,201,900 Docket No.: MXI-354CP2CN3

same Information Disclosure Statement on two separate occasions earlier in the prosecution of the patent. However, in both instances and for no apparent reason, the Information Disclosure Statement submitted was not reviewed or acknowledged by the Examiner. In particular, the Information Disclosure Statement filed October 25, 2005 was initially submitted by Patentees on January 24, 1997 and received by the Office on January 28, 1997. (See enclosed Exhibit A, which includes a copy of the Information Disclosure Statement, Form-PTO 1449 and Return Receipt postcard date stamped by the Office on January 28, 1997.) The same Information Disclosure Statement was again submitted by patentees on March 9, 2001 and received by the Office on March 15, 2001 (See Exhibit B, which includes a copy of the Return Receipt Postcard and the Transmittal form for the submission). For no apparent reason, neither Information Disclosure Statement was reviewed by the Examiner.

Therefore, because Patentees' made reasonable efforts to conclude processing and examination of the instant patent through multiple submissions of the same Information Disclosure Statement for the Examiner's consideration early the prosecution, they should not be penalized for the delay associated with the resubmission. Accordingly, Patentees respectfully request that the Office reinstate the period of reduction of 64 days and issue a certificate of correction showing a revised Patent Term Adjustment of 551 days instead of 487 days.

Dated: October 26, 2007

Respectfully submitted,

Jeanne M. DiGiorgio

Registration No.: 41,710 LAHIVE & COCKFIELD, LLP

One Post Office Square

Boston, Massachusetts 02109-2127

(617) 227-7400

(617) 742-4214 (Fax)

Attorney/Agent For Applicant

# Exhibit



APPLICAN '. I.S LONBERG et al.

Title: TRANSGENIC NON-HUMAN ANIMALS FOR PRODUCING HETEROLOGOUS ANTIBODIES Serial No: 08/728,463 Filed: October 10, 1995 Fee (if any) \$0.00 CheckEnclosed[]Yes[X]No

Certificate of Mailing:

L Raiset Class [JExpress Mail label agg : Kinds stamp receipt date and mail to acknowledge receipt of JANhe accompanying: 150

Information Disclosure Statement Under 37 CFR §1.97 and

stys from PTO-1449 listing references A1-C101

4. Postcard

Due Date:

Date Mailed: 1/24/97

Atty/Secy RTA/dmv File No.: 014643-009020US

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231,



PATENT

Attorney Docket No. 014643-009020US

TOWNSEND and TOWNSEND and CREW LIPE OF

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

NILS LONBERG et al.

Application No.: 08/728,463

Filed: 10 October, 1996

For: TRANSGENIC NON-HUMAN ANIMALS FOR PRODUCING HETEROLOGOUS ANTOBODIES Examiner: UNASSIGNED

Art Unit: UNASSIGNED

INFORMATION DISCLOSURE

STATEMENT UNDER

37 CFR \$1.97 and \$1.98

Assistant Commissioner for Patents Washington, D.C. 20231

Sir:

The disclosures cited on attached form PTO-1449 are being called to the attention of the Examiner. Copies of some of the disclosures (references A1-C96) are not being provided pursuant to 37 C.F.R. 1.98(d), as those disclosures have been previously cited by or submitted to the Patent Office in prior applications Serial Nos. 07/810,279, 07/853,408, 08/161,739, 08/165,699, 08/096,762, 08/352,322, and 08/209,741, to which the above identified application claims priority.

This information disclosure statement is being filed before the mailing date of the first office action on the merits. Niels LONGBERG et al. Application No.: 08/728,463 Page 2 PATENT

It is respectfully requested that the cited information be expressly considered during the prosecution of this application, and the disclosures be made of record therein and appear among the "references cited" on any patent to issue therefrom.

Respectfully submitted,

Randolph T. Apple Reg. No. 36,429

TOWNSEND and TOWNSEND and CREW LLP Two Embarcadero Center, 8th Floor San Francisco, California 94111-3834 (415) 576-0200 Fax (415) 576-0300 RTA:dmv

h:\home\RTA\WORK\GENPHARM\90-2\IDS

FORM PTO-1449 (Modifiea,  LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT (Use Several Sheets if Necessary)		Attorney D 14643-009		Serial 08/352,3				
		Applicant NILS LONBERG and ROBERT M. KAY						
PAGE 1			leets if	necessary)	Filing Dat December 7		Group 1804	
Referen	ce D	esig	nation	<u>ס</u>	.s. PATENT D	ocuments		
Examine Initial		Doc	ument No	. Date	Name	Class	Subcl:	File Date If Approp
·	<b>A1</b>	4,2	04,244	04/20/93	Fell et al.	435		
	A2	5,1	.75,384	12/29/92	Krimpenfort	800	Co	PY
	АЗ	5,4	34,340	07/18/95	Krimpenfort	800		
				FO	REIGN PATENT	DOCUMENTS		
		Doc	umont' No	. Date	Country	Cla	ee Subc	Trans.
		DOC	umeric No	Dave	COUNTELLY		<u>aa subc</u>	A. IES NO
	B1	EP	0 315 06	2 05/10/89	EP			
	B2	WO	90/04036	04/19/90	PCT			
	В3	WO	90/12878	11/01/90	PCT			
	B4	WO	92/03918	03/19/92	PCT			
	<b>B</b> 5	WO	91/10741	07/25/91	PCT			
	В6	WO	91/00906	01/24/91	PCT .			
		<u>othe</u>	ER ART (I	ncluding A	uthor, Title	. Date, Per	tinent Pa	iges, Etc.)
	C1		Alt et a August 1		oglobulin ge	nes in tran	nsgenic m	ice, TIG -
, <u>, , , , , , , , , , , , , , , , , , </u>	C2		locus: d	efinition (	ontent and o of three new MBO J. 7:727	V <sub>r</sub> families	of the h s and lin	numan Ig V <sub>H</sub> cage to the
	<b>C</b> 3		heavy-ch interleu	ain transc kin 4 and	Synthesis of ripts in re inhibition 86:2829-283	sting B ce by interfe	lls: In	duction by
	C4				nologous rec 23:199-225 (		in mammal	ian cells,
EXAMINE	R				DATE CONSI	DERED		

	FORM PTO-1449 (Modified)  LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION  DISCLOSURE STATEMENT  (Use Several Sheets if Necessary)			14643-0090		Serial No. 08/352,322
FOR AF				Applicant NILS LONBERG	and ROBER	r m. kay
PAGE 3		11		Filing Date December 7,		Group 1804
		ОТН	ER ART (Including A	thor, Title,	Date, Per	tinent Pages, Etc.)
	C5		Bruggemann et al., mice: expression i Immunol. 21:1323-1	from 100 kb of	ody produc the human	tion in transgenic IgH locus, Eur. J.
<del></del>	C5	(i)		from transg		nal antibodies with Proc. Natl. Acad.
<del></del>	C6					cken immunoglobulin sgenic mice, Nature
	_ C7		Capecchi, The new manageting, TIG 5:7		s: Altering	the genome by gene
	C8		Capecchi, Altering Science 244:1288-1		by homolog	yous recombination,
	C9		Coffman et. al., T production and its 136:949-954 (1986)	cell activity inhibition	that enhaby interfe	nces polyclonal IgE eron-γ, J. Immunol.
	C1	0	Coffman et al., A enhances IgA produ	mouse T cell ction, J. Imm	product unol. 139:	that preferentially 3685-3690 (1987)
	C1	1	Doetschman et al., in mouse embryonic	Targetted cor stem cells,	rrection of Nature 330	a mutant HPRT gene :576-578 (1987)
	C1	2	Durdik et al., limmunoglobulin hea Natl. Acad. Sci. U	vy chain gen	e in tran	a microinjected $\mu$ sgenic mice, Proc.
	_ c1	3	Esser and Radbruc unrearranged Sγ1 sw interleukin 4, The	vitch regions	in activat	f transcription of ed murine B cells by 9)
					•	
EXAMIN	VER			DATE CONSTD	ERED	

DATE CONSIDERED

FORM PTO-1449		Attorney Docket No. 14643-009000	Serial No. 08/352,322
FOR APPLICANT'S DISCLOSURE STATE	PEMENT	Applicant NILS LONBERG and ROBER	T M. KAY
PAGE 3 OF 11	neets if Necessary)	Filing Date December 7, 1994	Group 1804
ОТН	ER ART (Including A	uthor, Title, Date, Per	tinent Pages, Étc.)
C13(i)	Ferrier et al., rearrangement in a EMBO J. 9:117-125	Separate elements co a transgenic recombinat (1990)	ntrol DJ and VDJ ion substrate, The
C14		plenic B cell activatio nol. 20:983-989 (1990)	n in IgM-transgenic
C15	Gerstein et al., Is chain transgene occ chromosomes, Cell	sotype switching of an i curs by dna recombination 63:537-548 (1990)	mmunoglobulin heavy on between different
C16	Goodhardt et al., Rearrangement and expression of rabbit immunoglobulin $\kappa$ light chain gene in transgenic mice, Proc. Natl. Acad. Sci. (U.S.A.) 84:4229-4233 (1987)		
C17	Gordon, Transgenic mice in immunology, The Mount Sinai Journal of Medicine 53:223-231 (1986)		
C18		bition of immunoglobuli of a $\lambda 2$ transgene, J.	
C19		organization of human ine loci, The EMBO J. 7:	
C20		Expression of immunoglusion in transgenic mi	
C21		man monoclonal antibody prospects, J. of Immuno	
C22		fomologous integration s selection, Genes & Deve	
EXAMINER		DATE CONSIDERED	

FORM PTO-1449		Attorney Docket No. 14643-009000	Serial No. 08/352,322
FOR APPLICANT'S	CEMENT	Applicant NILS LONBERG and ROBER	r M. KAY
(Use Several SI PAGE 4 OF 11	neets if Necessary)	Filing Date December 7, 1994	Group 1804
отн	ER ART (Including A	uthor, Title, Date, Per	tinent Pages, Etc.)
C23	immune response to	ernation of the B cell phosphocholine and the b sgenic mice, J. of Imm	B cell repertoire in
C22(i)	Jung et al., Shut deletion of a switch 987 (1993)	down of class switchir ch region control elemer	recombination by at, Science 259:984-
C24	Kitamura et al., disruption of the gene, Nature 350:4	A B cell-deficient membrane exon of the imm 23-426 (1991)	mouse by targeted aunoglobulin $\mu$ chain
C25	in mouse embryonic	s, Inactivating the $\beta_2$ -c stem cells by homolo Sci. USA 86:8932-8935 (	gous recombination,
C26	introduced into co	mbination in mouse L ells and homologous chr Sci. USA 82:1391-1395 (	omosomal sequences,
C27	cells are gene	rimary antibody-forming trated from separate ell 59:1049-1059 (1989)	cells secondary B precursor cell
C28	Lo et al., Express and sheep, Eur. J.	sion of mouse IgA by tr Immunol. 21:1001-1006	ansgenic mice, pigs (1991)
c29	locus and its i	nysical map of the hum mplications for the m cl. Acids Res. 15:9667-9	echanisms of $V_K$ - $J_K$
C30	Lutzker and Alt, immunoglobulin $\gamma^{21}$ (1988)	Structure and expreson transcripts, Mol. Cel	ssion of germ line 1 Biol. 8:1849-1852
EXAMINER		DATE CONSIDERED	

		(Modified)	Attorney Docket No. 14643-009000	Serial No. 08/352,322
FOR APP	LICANT'	S AND PUBLICATIONS S INFORMATION TEMENT heets if Necessary)	Applicant NILS LONBERG and ROBER	T M. KAY
PAGE 5		needs it Nedessary,	Filing Date December 7, 1994	Group 1804
	отн	ER ART (Including A	uthor, Title, Date, Per	tinent Pages, Etc.)
	C31	mouse embryo-deriv	isruption of the proto red stem cells: a gent s to non-selectable gen	neral strategy for
	C32	regions: implicati	quences of human imm ons for recombination 18:7305-7316 (1991)	unoglobulin switch and transcription,
	C34		l hypersensitive sites ulin heavy-chain genes,	
	C35	Mowatt et. al., DN. reveals novel stru (1986)	A sequence of the murin octural elements, J.Imm	e γ1 switch segment unol. 136:2674-2683
:	C36		rane-bound IgM Obstruct , Eur. J. Immunol. 19:9	
	C37	Murray & Szostak, yeast, Nature 305:	Construction of artification (1983)	cial chromosomes in
	C38	Neuberger et al., regulation in im 338:350-352 (1989)	Isotype exclusion a munogloublin-λ transg	nd transgene down- enic mice, Nature
	C39	Nikaido et al., N immunoglobulin C a Chem. 257:7322-732	ucleotide sequences of nd C genes and their c 9 (1982)	switch regions of omparison, J. Biol.
	C40	Nikaido et al., Sv composed of simp 292:845-848 (1981)	vitch region of immunoc le tandem repetitive	globulin Cµ gene is sequences, Nature
EXAMINE	R		DATE CONSIDERED	

FORM PTO-1449	,	Attorney Docket No. 14643-009000	Serial No. 08/352,322	
LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT (Use Several Sheets if Necessary)		Applicant NILS LONBERG and ROBERT M. KAY		
PAGE 6 OF 11	reets II Necessary)	Filing Date December 7, 1994	Group 1804	
ОТН	ER ART (Including A	uthor, Title, Date, Per	tinent Pages, Etc.)	
C41	Nussenzweig et al. incidence of lymp Nature 336:446-450	, A human immunoglobul: homas in c-Myc-bearing (1988)	in gene reduces the g transgenic mice,	
C41(i)	Nussenzweig et al carrying mutant hu	., Allelic exclusion man IgM genesJ. Exp. Me	in transgenic mice d. 167:1969 (1988)	
C42	Oettinger et al., synergistically 2 248:1517-1523 (199	RAG-1 and RAG-2, acactivate V(D)J recom	djacent genes that abination, Science	
C43	Petters, transgent Immunol. Immunopat	ic mice in immunologio h. 17:267-278 (1987)	cal research, Vet.	
C44	evolutionary company	Human immunoglobulin risons of $C\mu$ , $C\delta$ and $C\gamma$ $C\delta$	genes and associated	
C45	Rath et al., Quant allelic exclusion Immunol. 143:2074-	itative analysis of id in mice with a $\mu$ Iq 2080 (1989)	iotypic mimicry and g Transgene, J. of	
C46	Rath et al., B cell extend to L chair (1991)	l abnormalities induced n isotype usage, J. of	by a $\mu$ ig transgene Immunol. 146:2841	
C47	immunoglobulin hea	Evolutionary approach ovy chain switching: Evogenes, Proc. Natl. Ac	vidence from cloned	
C48	Reid et al., A inducibility by bo Sci. (U.S.A.) 86:8	single DNA response of the $\alpha-$ and $\gamma-$ interferons 40-844 (1989)	element can confer;, Proc. Natl. Acad.	
C49		llelic exclusion and co e rearrangement in $\kappa$ tra		
EXAMINER		DATE CONSIDERED		

EXAMINER

FORM PTO-1449 (Modified)	Attorney Docket No. 14643-009000	Serial No. 08/352,322
LIST OF PATENTS AND PUBLICAT FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT (Use Several Sheets if Neces	Applicant NILS LONBERG and ROBER	T M. KAY
PAGE 7 OF 11	Filing Date December 7, 1994	Group 1804
OTHER ART (Include	ling Author, Title, Date, Per	tinent Pages, Etc.)
immunoglobuli for mitogen	al., Structure and exprein $\gamma$ 3 heavy chain gene transcand lymphokine directed class 1-627 (1990)	ripts: implications
of rearranged	., Transmission and expression immunoglobulin μ and κ gen Mature 314:330-334 (1985)	
the joining r	Physical linkage of a variabl region segment of the human i Biochem. Biophys. Res. Comm.	mmunoglobulin heavy
disruption is	Sharp, Positive genetic s n mammalian cells by homolo Acad. Sci. USA 86:227-231 (19	gous recombination,
C54 Shimizu et a mechanism fo immunoglobuli	al., Trans-splicing as a or the multiple isotype in gene, J. Exp. Med. 173:138	expression of the
trans-mRNA in	l., Immunoglobulin double-is n a human immunoglobulin tran Sci. USA 86:8020-8023 (1989)	otype expression by asgenic mouse, Proc.
in an IgM-pro	<ol> <li>Production of sterile traducing human neoplastic B celeing cells, Intl. Immunol. 1:</li> </ol>	1 line that switches
	al., Human immunoglobulin D genic families, Nature 294:63	
C58 Smithies et chromosomal Nature 317:23	al., Insertion of DNA sequer $eta$ -globulin locus by homolog $30-234$ (1985)	nces into the human gous recombination,

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

DATE CONSIDERED

FORM PTO-1449 (Modified) LIST OF PATENTS AND PUBLICATION	Attorney Docket No. 14643-009000	Serial No. 08/352,322
FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT (Use Several Sheets if Necessar	Applicant NILS LONBERG and ROBER	T M. KAY
PAGE 8 OF 11	Filing Date December 7, 1994	Group 1804
OTHER ART (Including	Author, Title, Date, Per	tinent Pages, Etc.)
C59 Snapper et. al., reciprocally reg 947 (1987)	Interferon-γ and B cell sulate Ig isotype production	stimulatory factor-1 on, Science 236:944-
C60 Song et al., According homologous recording Sci. USA 84:6820	urate modification of a chi mbination in human cells, 0-6824 (1987)	romosomal plasmid by Proc. Natl. Acad.
C61 Soriano et al. oncogene leads (1991)	, Targeted disruption of to osteopetrosis in mic	the c-src proto- e, Cell 64:693-702
directed by pri	, Immunoglobulin heavy-cha or induction of transcri roc. Natl. Acad Sci. (U	pts from constant-
C63 Storb, Immunoglo Immunoglobulin (1989)	obulin gene analysis in d Genes, Academic Press Li	transgenic mice, <u>in</u> mited, pp. 303-326
C64 Storb et al., mutation of mous Reviews 89:85-10	Expression, allelic exc se immunoglobulin kappa g 2 (1986)	lusion and somatic enes, Immunological
switch region an	complete nucleotide sequen d analysis of switch recom domas, J. Immunol. 135:62	bination in two vi-
C66 Tahara et al., transgenic mice,	HLA antibody responses Immunogenetics 32:351-36	s in HLA class I O (1990)
	<pre>l., Regulation of im nd expresion, immunology</pre>	umunoglobulin gene y today 10:143-146
EXAMINER	DATE CONSIDERED	

EXAMINER

			·		
		Modified)	Attorney Docket No. 14643-009000	Serial No. 08/352,322	
LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT (Use Several Sheets if Necessary)		INFORMATION EMENT	Applicant NILS LONBERG and ROBERT M. KAY		
PAGE 9	of 11	leets II Necessary)	Filing Date December 7, 1994	Group 1804	
	OTU	TR APT (Including A	uthor, Title, Date, Per	tinent Pages, Etc.)	
	<u> </u>	ANT TAMOTERATION			
	C68	Thomas and Capectargeting in mouse (1987)	chi, Site-directed mu embryo-derived stem cel	tagenesis by gene ls, Cell 51:503-512	
	C69	Thomas et al., High	h frequency targeting o lian genome, Cell 44:41	f genes to specific 9-428 (1986)	
	C70	Uhlmann and Peym therapeutic princi	an, Antisense Oligon ple, Chemical Reviews 9	ucleotides: A new 0:544-584 (1990)	
	C71	Weaver et al., A trearrangement of e	ransgenic immunoglobul: ndogenous genes, Cell 4	in Mu gene prevents 2:117-127 (1985)	
	C72	of a human $\lambda 1$ heav	ell-type-specific and r /y-chain immunoglobulin Acad. Sci. USA 83:2152-	gene in transgenic	
	C73	Yancopoulos and Alt of variable-region	, Regulation of the asse genes, Ann. Rev. Immuno	embly and expression 1. 4:339-368 (1986)	
	C74	Yancopoulos and Al specific expression 40:271-281 (1985)	it, Developmentally conon of unrearranged $V_{ m H}$ (	trolled and tissue- gene segments, Cell	
<u> </u>	C75	homologous recombi	ass switch from $\mu$ to nation between $\sigma_{\mu}$ and $\epsilon_{\mu}$ e loci, Eur. J. Immunol.	, sequences in human	
	C76	microglobulin gene	Germ-line transmission produced by homologo 1s, Nature 342:435-438	is recombination in	
	C77	embryonic stem (ES	Production of chimaen ) cells carrying a homo ous recombination, Natur	eobox Hox 1.1 allele	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

DATE CONSIDERED

FORM PTO-1449		Attorney Docket No. 14643-009000	Serial No. 08/352,322	
LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT (Use Several Sheets if Necessary)		Applicant NILS LONBERG and ROBERT M. KAY		
PAGE 10 OF 11		Filing Date   December 7, 1994	Group   1804	
ОТН	ER ART (Including A	uthor, Title, Date, Per	tinent Pages, Etc.)	
C78	Buttin, Exogenous a new strategy for TIG - Vol 3, no. 8	Ig gene rearrangement i human monoclonal antib (August 1987)	n transgenic mice: ody production?	
C79	Green et al., Ant from mice engineere Nature Genetics 7:	igen-specific human mo ed with human Ig heavy a 13-21 (1994)	noclonal antibodies nd light chain YACs,	
C80	immunoglobulin heav	Complete physical m vy chain constant region SA 86:5567-5571 (1989)	ap of the human gene complex, Proc.	
C81	Humphries et al., preferentially rea 331:446-449 (1988)	A new human immuno rranged in immature B-c	globulin $V_H$ family ell tumours, Nature	
C82	Jaenisch, Transgen	ic Animals, Science 240	0:1468-1474 (1988)	
C83	mice: Deletion of region blocks B-c	, Analysis of homozygo the immunoglobulin l ell development and a Sci. USA 90:2551-2555 (	neavy-chain joining ntibody production,	
C84	Lonberg et al., Ar comprising four 368:856-859 (1994)	ntigen-specific human a distinct genetic mod	ntibodies from mice ifications, Nature	
C85	immunoglobulin λ g	ructural alterations in enes are associated wit 295:428-430 (1982)	J regions of mouse th differential gene	
C86	Morrison, Success	in specification, Nature	368:812-813 (1994)	
C87		A second B cell-specifi vy-chain locus, Nature		

# EXAMINER DATE CONSIDERED

FORM PTO-1449	•	Attorney Docket No. 14643-009000	Serial No. 08/352,322
FOR APPLICANT' DISCLOSURE STA	TEMENT	Applicant NILS LONBERG and ROBER'	r M. KAY
PAGE 11 OF 11	heets if Necessary)	Filing Date   December 7, 1994	Group  1804
OTH	ER ART (Including A	uthor, Title, Date, Per	tinent Pages, Etc.)
C88	Scangos and Bieber Genetics 24: 285-3	ich, Gene transfer into 22 (1987)	mice, Advances in
C89	Stites et al., Bas	ic & Clinical Immunolog	y, page 50 (1984)
C90	a sequence in I stimulates B cell	antisense oligonucleoti (γ2b Increase γ2b ge: DNA synthesis, and inhi rnal of Experimental Mo	rmline transcrips, bits immunoglobulin
C91		ed insertion of a varial heavy chain locus, Sc	
C92		Human immunoglobulin atic mutation and class us IgM, International I	
C93	vitro with an alkyl	est of immunoglobulin G ating antisense oligonuc , page 28, 112:229433X	:leotide derivative,
C94	Weiss, Mice making April 28, 1994	human-like antibodies, 1	The Washington Post,
C95	M. Neuberger (1996 high-avidity human	) Nature Biotechnology mabs in mice	14:826. Generating
C96		(1996) Nature Biotechno monoclonal antibodies genic mice	
H:\\Genpharm\IDS\90-00\90-0	·IDS.03		
•			
EXAMINER		DATE CONSIDERED	

<del></del>										
FORM PTO-1449 (Modified)  LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT (Use several about II DECOMMENT) Page 12 of 12			Attorney Docket No. Serial No.: 014643-009020US 08/728,463							
			Applicant: Niels LONGBERG et al.							
			Filing Date: 10/10/96	Group: UNASSIGNED						
Reference Designation U.S. PATENT DOCUMENTS										
Examinor Initial	Document No.	Date	Name	Class	Sub-class	Filing Date (If Appropriate)				
				·						
POREIGN PATENT DOCUMENTS										
	Document No.	Date	Country	Class	Sub-class	Translation (yes/no)				
OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)										
C97	Chen et al. (1989) Arthritis Rheum. 32:72 Title: Characterization Of Two Immunoglobulin V <sub>R</sub> Genes That Are Homologous To Human Rheumatoid Factors									
C98	Jonker et al. (1993) Clin. Exp. Immunol. 93:301-307 Title: In Vivo Treatment With A Monoclonal Chimeric Anti-CD4 Antibody Results In Prolonged Depletion Of Circulating CD4+ Cells in Chimpanzees									
C99	Knox et al. (1991) Blood 77:20 Title: Observations On The Effect Of Chimeric Anti-CD4 Monoclonal Antibody In Patients With Mycosis Fungoides									
C100	Powelson et al. (1994) Transplantation. 57:788-793 Title: CDR-Grafted OKT4A Monoclonal Antibody In Cynomolgus Renal Allograft Recipients									
C101	Tomlinson et al. (1992) J. Mol. Biol. 227:776  Title: The Repertoire Of Human Germline V <sub>H</sub> Sequences Reveals About Fifty Groups of V <sub>H</sub> Segments With Different Hypervariable Loops									
EXAMINER		· DATE (	CONSIDERED							

HA...UD5/90-20/90-2-ID5.02



UNITED STATES PATENT AND TRADEMARK OFFICE

Please stamp your date of receipt of the following documents and return to addressee:

Mailing Date:

March 9, 2001

First Class Mail

File No.: Application No.: 014643-009020us Attorney:

Filed:

ATS/ksj October 10, 1996 MAR 2 9

Inventor(s):

08/728,463 LONBERGet al...

TRANSGENIC NON-HUM FANIMALS FOR PRODUCING HETEROLOGOUS ANTIBEDES

References cited in the information Disclosure Statement previously filed and referenced in the parent case, application no. 08/352,322

PA 3131964 vL

Title:

· ·	ر آر			**	) PTO/S	B/21 (08-00)				
Přease type a plus sign (+) inside this box —>										
	Applic	cation Number	08/728,463							
TRANSMITTAL	Filing Date		October 10, 1996							
FORM	First	Named Inventor	Lonberg,	Lonberg, Nils, et. al.						
(to be used for all correspondence after in	Group	Art Unit	1644	1644						
	Exami	ner Name	DeCloux, Amy							
Total Number of Pages In This Submission 3			ey Docket Number	14843009020						
ENCLOSURES (check ell that apply)										
Fee Transmittal Form	Assignment Papers (for an Application)			After Allowance Communication to Group						
Fee Attached	☐ Drawing(s)			Appeal Communication to Board of Appeals and Interferences						
Amendment / Response	Licensing-related Papers			Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)						
After Final	Petition Routing Slip (PTO/S8/69) and Accompanying Petition			Proprietary Information						
Affidavits/declaration(s)	Petition to Convert to a Provisional Application			Status Letter						
Extension of Time Request	Power of Attorney, Revocation Change of Correspondence Address				r Enclosure(s) s identify below):	!				
Express Abandonment Request	Terminal Disclaimer Request for Refund			References cited in the information Disclosure Statement previously filed and referenced in the parent case, application no. 08/352,322						
Information Disclosure Statement	CD, Number of CD(s)									
Certified Copy of Priority Document(s)	Remarks The Commissioner is autho Deposit Account 20-1430.				o charge any addition	onal fees to				
Response to Missing Parts/ Incomplete Application	· ·									
Response to Missing Parts under 37 CFR 1.52 or 1.53	<del></del>									
SIGNA	TURE OF A	APPLIC	ANT, ATTORNEY, O	R AGENT						
Firm Townsend and Tow	msend and	Crew LLF								
Individual name Andrew T. Serafini	Andrew T. Serafini Reg No. 41,303									
Signature Chromes	Signature Anama V. Suffer									
Date 030901										
CERTIFICATE OF MAILING										
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on this date:										
Typed or printed name Many Benston										
March mutcapis	. (Sem	240		Data	12.9.0					

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be send to the Chief Information Officer, U.S. Patent and Trademark Office. Washington, DC 20231, DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

BEST AVAILABLE COPY